



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,827	02/19/2002	Atsushi Shimizu	0216-0466P	2851

2292 7590 06/17/2003

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

SERGEANT, RABON A

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 06/17/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/049,827

Applicant(s)

SHIMIZU ET AL.

Examiner

Rabon Sergent

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 9-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9,11-13 and 15 is/are rejected.
- 7) ☒ Claim(s) 10,14,16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1711

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12, 13, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 4-213316 or JP 4-8719.

The references disclose the production of polyurethane prepolymers, wherein a polyisocyanate is reacted with a polytetramethylene ether glycol having a molecular weight and a molecular weight distribution which read on applicants' claims. Furthermore, given that the disclosed molecular weight distributions are analogous to those shown for polyols A, B, E, and G within Table 1 and that these polyols meet applicants' claimed characteristic (3), the position is taken that the claimed high molecular weight PTMG content is an inherent characteristic of the disclosed polytetramethylene ether glycols. Furthermore, applicants have not established that the process of claim 13 distinguishes the claimed composition from the disclosed prepolymer.

Art Unit: 1711

3. Claims 1, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 4- 213316 or JP 4-8719.

The references disclose the reaction of a prepolymer with a chain extender to yield a polyurethane polymer, wherein the prepolymer is produced from the reaction of a polyisocyanate with a polytetramethylene ether glycol having a molecular weight and a molecular weight distribution which meet applicants' claims. Furthermore, given that the disclosed molecular weight distributions are analogous to those shown for polyols A, B, E, and G within Table 1 and that these polyols meet applicants' claimed characteristic (3), the position is taken that the claimed high molecular weight PTMG content is an inherent characteristic of the disclosed polytetramethylene ether glycols.

4. However, the references fail to disclose a chain extender having the claimed carbon chain length. The position is taken that chain extenders which meet those claimed by applicants were well known components for reaction with prepolymers to yield polyurethanes, at the time of invention. Such well known chain extenders are exemplified by ethylenediamine and butanediol. Therefore, it would have been obvious to utilize these chain extenders in place of the disclosed chain extenders, so as to arrive at the instant invention.

5. As aforementioned, applicants have not established that the process of claim 9 distinguishes the claimed polyol from the disclosed polyol.

6. The examiner has considered applicants' response; however, applicants have not established that the disclosed polytetramethylene glycols do not inherently meet applicants'

Art Unit: 1711

claimed characteristic (3), and the examiner has set forth logical rationale for why the feature is possessed by the disclosed polyols.


7. Claims 10, 14, 16, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

R. Sergent
June 15, 2003


RABON SERGENT
PRIMARY EXAMINER